

Amendments to the Claims

Please amend the claims as indicated below. All claims are listed below, with amended claims so marked. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method ~~communication protocol~~ for ~~establishing-initiating~~ a communication session through a network translation device ~~which translates internal network traffic having non-routable internal origin addresses and ports into external network traffic having a routable external origin address and associated external ports~~ with a communication protocol utilizing a single communication port for both setting up the communication session and transferring data during the communication session, the method comprising:

preparing a session setup for a session with ~~between~~ a first machine ~~and a second machine~~, the session setup identifying an ~~non-routable~~ internal origin address and ~~an~~ a first internal port to which the first machine expects ~~will listen for~~ a response to the session setup; and

sending the session setup to a ~~the~~ second machine through the network translation device, ~~using the internal port so as to prime the network translation device for receiving the response to the session setup; wherein said network translation device does not modify the session setup, and wherein the second machine is configured to inspect the session setup and recognize identify if the session setup includes the non-~~

~~routeable~~ internal origin address[.] and if so to associate with the first machine the
routeable external origin address of the network translation device;

receiving by the first machine a communication session initiation request from a
third machine, said initiation having an associated external address/port for the third
machine;

sending an acknowledgement to said initiation to the external address/port so as
to prime the network translation device to receive the session from the third machine.

2. (Currently Amended) The protocol of claim 1, further comprising:

sending content for the communication session from the first machine to the third
machine, wherein the third machine is configured to wait for the content from the first
machine before the third machine sends content to the first machine

~~wherein translation by the network translation device results in network traffic~~
~~having the external origin address and an external port different from the non-routeable~~
~~internal origin address and the internal port in said session setup.~~

3. (Currently Amended) The protocol of claim 1 2, further comprising:

receiving data for the session from the third machine responsive to said priming
~~registering the first and the second machines with a registration server for~~
~~registering communication endpoints.~~

4. (Currently Amended) The protocol of claim 1 wherein the protocol

comprises modification to an original communication protocol requiring utilizing different

communication ports for setting up the communication session and transferring data during the communication session

~~said sending the session setup includes the network address translation device performing: receiving the session setup for the session; sending the session setup to the second machine; recording said sending in an access authorization table; receiving data from a network; and comparing said received data with at least a portion of the access authorization table the entry to determine if said received data is responsive to said sending the session setup.~~

5. (Currently Amended) The protocol of claim 1, wherein the session setup includes an alias for the first machine unrelated to a network address, and the wherein the second machine includes is a registration server operable to perform for ~~registering machine aliases with network addresses, the protocol further comprising the registration server:~~

receiving the session setup, said session setup including the an alias for the first machine;

examining the session setup to identify whether the session setup comprises the ~~non-routable~~ internal origin address for the first machine; and if so,

registering the first machine with respect to the alias and the external origin address.

6. (Currently Amended) The protocol of claim 1, wherein the second machine is an endpoint to the communication session, ~~the protocol further comprising the second machine:~~

~~receiving the session setup;~~

~~determining the session setup indicates the second machine should send a session acknowledgement to the non-routable internal origin address; and~~

~~disregarding the non-routable internal origin address identified in the session setup and instead sending the session acknowledgement to the first machine at the external origin address.~~

7. (Currently Amended) The protocol of claim 6, further comprising the network translation device performing:

receiving the initiation for the session acknowledgement for the first machine from the second machine; and

translating the session acknowledgement for delivery to the ~~non-routable~~ internal origin address ~~using the expected response port primed by the first machine.~~

8. (Currently Amended) A method for a registration server to facilitate communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, comprising:

receiving a first registration for the first endpoint according to a protocol utilizing a single communication port for both setting up a communication session and transferring data during the communication session, said registration comprising an embedded address, embedded port primed by the first endpoint and embedded alias for the first endpoint, wherein said priming by the first endpoint includes sending data from the first endpoint using the embedded port to prime the NAT to receive responsive data in

~~accord with said modified protocol~~ ~~said registration has an apparent origin address of~~
~~the NAT;~~

determining the embedded network address is a non-routable address; and
registering the first endpoint with the apparent origin address, embedded port,
and embedded alias.

9. (Currently Amended) The method of claim 8, further comprising:
receiving from the second endpoint a resolution request for the alias;
replying to said request with at least the apparent origin address;
receiving an initiation for the session ~~a session setup~~ from the second endpoint;
and
forwarding the session setup to the first endpoint at the apparent origin address.

10. (Currently Amended) The method of claim 9, further comprising:
~~sending an acknowledgement through the NAT to the second endpoint, the~~
~~acknowledgement comprising the non-routable address and a dynamically assigned~~
~~port of the first endpoint;~~
determining by the third machine ~~second endpoint~~ whether the second network
address is routable; and
if so, waiting by the third machine ~~second endpoint~~ for audiovisual data to be
sent to the second endpoint from the first endpoint.

11. (Withdrawn) An apparatus for initiating a session through a network
translation device that does not translate protocol data, said apparatus comprising a

readable medium having instructions encoded thereon for execution by a processor,
said instructions capable of directing the processor to perform:

preparing a session setup for a session between a first machine and a second machine, the first machine having a non-routable internal origin address and an internal port to which the first machine will listen for a response from the second machine; and

sending the session setup through the network translation device using the internal port so as to prime the network translation device for receiving the response from the second machine, wherein the second machine is configured to inspect the session setup to identify if the session setup includes non-routable internal origin addresses.

12. (Withdrawn) The apparatus of claim 11, said instructions including further instructions capable of directing the processor to perform:

including a first port in said session setup for communicating with a communication endpoint;

wherein translation by the network translation device results in the session setup having an apparent origin and a second port different from the non-routable address and the first port in said session setup, and wherein the second machine is configured to inspect said protocol data and identify the non-routable address.

13. (Withdrawn) The apparatus of claim 12, further comprising:
registering the first and the second machines with a registration server for registering communication endpoints.

14. (Withdrawn) The apparatus of claim 11, said instructions including further instructions capable of directing the processor to perform:

receiving the session setup for the session;

sending the session setup to the second machine;

recording said sending in an access authorization table;

receiving data from a network; and

comparing said received data with at least a portion of the access authorization table the entry to determine if said received data is responsive to said sending.

15. (Withdrawn) The apparatus of claim 11, wherein the second machine is a registration server for registering machine aliases with network addresses, said instructions including further instructions capable of directing the processor to perform:

receiving the session setup;

examining the session setup to identify whether the session setup comprises the non-routable internal origin address; and

if so, registering the first machine with respect to the alias and the external origin address.

16. (Withdrawn) The apparatus of claim 11, wherein the second machine is an endpoint to the session, said instructions including further instructions capable of directing the processor to perform:

receiving the session setup;

determining the session setup indicates sending a session acknowledgement to the non-routable address; and

sending the session acknowledgement to the first machine at the routable address.

17. (Withdrawn) The apparatus of claim 16, said instructions including further instructions capable of directing the processor to perform:

receiving a acknowledgement for the first machine; and

translating the session acknowledgement for delivery to the non-routable address.

18. (Withdrawn) An apparatus for a registration server to facilitate communicating between a first endpoint behind a network address translator (NAT) and a second endpoint, said apparatus comprising a readable medium having instructions encoded thereon for execution by a processor, said instructions capable of directing the processor to perform:

receiving a first registration for the first endpoint, said registration comprising an embedded address, embedded port primed by the first endpoint and embedded alias for the first endpoint, wherein said registration has an apparent origin address of the NAT;

determining the embedded network address is a non-routable address; and

registering the first endpoint with the apparent origin address, embedded port, and embedded alias.

19. (Withdrawn) The apparatus of claim 18, said instructions including further instructions capable of directing the processor to perform:

receiving from the second endpoint a resolution request for the alias;

replying to said request with at least the apparent origin address;
receiving a session setup from the second endpoint; and
forwarding the session setup to the first endpoint at the apparent origin address.

20. (Withdrawn) The apparatus of claim 19, said instructions including further instructions capable of directing the processor to perform:

 sending an acknowledgement through the NAT to the second endpoint, the acknowledgement comprising the non-routable address and a dynamically assigned port of the first endpoint;

 determining by the second endpoint whether the second network address is routable; and

 if so, waiting by the second endpoint for audiovisual data to be sent to the second endpoint from the first endpoint.

21. (Currently Amended) A method for a first endpoint internal to a network translation device to set up a communication session with a second endpoint external to the network translation device, the method comprising:

 contacting a registration server to resolve an alias for the second endpoint;

 receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and

 priming the network translation device, by sending at least one network packet to the second endpoint at the routable address on the content port, before completing setting up the communication session with the second endpoint;

receiving content for the communication session on the content port.

22. (Original) The method of claim 21, further comprising:

sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

23. (Original) The method of claim 22, further comprising the registration server:

receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the second endpoint; and

identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.

24. (Original) The method of claim 22, further comprising:

wherein the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the first endpoint with respect to a routable address associated with the network translation device.

25. (Withdrawn) An apparatus for a first endpoint internal to a network translation device to set up a communication session with a second endpoint external to the network translation device, said apparatus comprising a readable medium having instructions encoded thereon for execution by a processor, said instructions capable of directing the processor to perform:

contacting a registration server to resolve an alias for the second endpoint;

receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and

priming the network translation device, by sending at least one network packet to the second endpoint at the routable address on the content port, before completing setting up the communication session with the second endpoint.

26. (Withdrawn) The apparatus of claim 25, said instructions including further instructions capable of directing the processor to perform:

sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

27. (Withdrawn) The apparatus of claim 26, said instructions including further instructions capable of directing the processor to perform:

receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving the first session registration for the second endpoint; and

identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.

28. (Withdrawn) An apparatus for a first endpoint internal to a network translation device to set up a communication session with a second endpoint external to the network translation device, said apparatus comprising:

resolving means for contacting a registration server to resolve an alias for the second endpoint;

receiving means for receiving a first session registration from the registration server, the first session registration comprising a network address for the second endpoint that is routable, and a content port to which content should be sent to for the second endpoint; and

priming means for priming the network translation device, by sending at least one network packet to the second endpoint at the routable address on the content port, before completing setting up the communication session with the second endpoint.

29. (Withdrawn) The apparatus of claim 28, further comprising:

sending means for sending a second session registration for the first endpoint to the registration server, the second session registration comprising a network address for the first endpoint that is non-routable.

30. (Withdrawn) The apparatus of claim 29, further comprising:

receiving means for receiving the second session registration for the first endpoint from a routable network address associated with the network translation device;

identifying means for identifying that the second session registration comprises a network address that is non-routable, and responsive thereto, registering the first endpoint with respect to the routable network address associated with the network translation device;

receiving means for receiving the first session registration for the second endpoint; and

identifying means for identifying that the second session registration comprises a network address that is routable, and responsive thereto, registering the first endpoint in accord with the first session registration.